THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE AS FOLLOWS:

1. A process for preparing (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–5-hydroxy-3-oxo-1-heptanoic acid, tert-butylester comprising:

(a) reduction of 5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]-3-oxo-1-pentanoic acid, (R)-2-hydroxy-1,2,2-triphenylethyl ester;

(b) hydrolysis of (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–3-hydroxy-1-pentanoic acid, (R)-2-hydroxy-1,2,2-triphenylethyl ester using an alkali base in a solvent to form the acid;

(c) alkylation of the acid forming (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–5-hydroxy-3-oxo-1-heptanoic acid, tert-butylester.

2. A process for the preparation of (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–5-hydroxy-3-oxo-1-heptanoic acid, tert-butylester according to claim 1 using an alkali metal hydroxide as the alkali base.

3. A process for the preparation of (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–5-hydroxy-3-oxo-1-heptanoic acid, tert-butylester according to claim 1 using lithium hydroxide, sodium hydroxide or potassium hydroxide.

4. A process for the preparation of (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–5-hydroxy-3-oxo-1-heptanoic acid, tert-butylester according to claim 1 using sodium hydroxide.

5. A process for the preparation of (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–5-hydroxy-3-oxo-1-heptanoic acid, tert-butylester according to claim 1 using potassium hydroxide.

6. A process for the preparation of (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–5-hydroxy-3-oxo-1-heptanoic acid, tert-butylester according to claim 1 where the solvent is methanol or water or a mixture thereof.

7. A process for the preparation of (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–5-hydroxy-3-oxo-1-heptanoic acid, tert-butylester according to claim 1 using from about 1 to about 10 equivalents of an alkali metal base.

8. A process for the preparation of (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–5-hydroxy-3-oxo-1-heptanoic acid, tert-butylester according to claim 1 using from about 2 to about 8 equivalents of an alkali metal base.

9. A process for the preparation of (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–5-hydroxy-3-oxo-1-heptanoic acid, tert-butylester according to claim 1 using about 5 equivalents of an alkali metal base.

10. (R)-5-[2-(4-Fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–3-hydroxy-1-pentanoic acid.

11. Preparation of Atorvastatin or pharmaceutically acceptable salts thereof using the process of any one of claims 1 to 9.

12. A process according to any one of claims 1, 2, 3, 4, 5, 6, 7, 8, 9 or 11 where the chiral auxiliary (R)-1,1,2-triphenyl-1,2-ethanediol is recovered.

13. A process according to claim 12 where the chiral auxiliary (R)-1,1,2-triphenyl-1,2-ethanediol is recovered in optically enriched form.

14. A process according to any one of claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12 or 13 where the intermediate (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–3-hydroxy-1-pentanoic acid is not isolated.

15. A process according to any one of claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13 or 14 where (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–5-hydroxy-3-oxo-1-heptanoic acid tert-butylester is prepared using mono-*tert*-butyl malonate in the presence of a base.

16. A process according to claim 15 where the base is a metal alkoxide.

17. A process according to claim 16 where the base is magnesium ethoxide.

18. A process for the preparation of (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–3-hydroxy-1-pentanoic acid, methylester from (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–3-hydroxy-1-pentanoic acid.

19. A process for the preparation of (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–3-hydroxy-1-pentanoic acid comprising hydrolysis of (R)-5-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]–3-hydroxy-1-pentanoic acid, (R)-2-hydroxy-1,2,2-triphenylethyl ester.

20. The process of claim 19 wherein said hydrolysis is carried out using a base.

21. The process of any one of claims 19 or 20 wherein said process is carried out in the presence of a solvent.

22. 5-[2-(4-Fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]-3-oxo-1-pentanoic acid, (R)-2-hydroxy-1,2,2-triphenylethyl ester.